

BIOHACK NOTES



THE LIVING WORLD

- BASED ON ACTIVE RECALL AND SPACED REPETITION
- TARGET 360/360 IN NEET BIOLOGY & 100/100 IN BOARDS!



PARTH GOYAL





Story Behind This Idea

Hi,

These notes are not normal notes, instead they are actually called "Biohacks".

Story behind this note taking technique –

This kind of note taking was accidentally discovered by me (Parth Goyal, NEET 2019 AIR 223 Holder, Biology 345/360 Scorer) during my class 12th.

I was horrible in learning biology. It used to be the hardest subject for me, as my memory was not good and I used to forget things faster. One day my teacher said me to make Assertion/Reason questions from NCERT for preparation for AIIMS entrance (at that time AIIMS used to held its different exam). I initially found this idea boring and time consuming. But one day I thought that why not to make other kind of questions which are easier to make and consume less time, like T/F, fill in the blank & one word questions. I tried this idea, and it came out to be the best thing I ever did for myself!

After starting this kind of note taking, my biology marks went too high (I scored 345/360 in NEET) and also I got so much time left that I cleared JEE also, with NEET!! Yes it is true! I scored 99.45%ile in Jee Mains & AIR 5364 in JEE Adv.

Later I came to know that I was using two modern scientifically proven study techniques, 1st was active recall, and the 2nd was spaced repetition. Learn about these on internet. You can also visit my youtube channel for NEET related study techniques and strategies.

Using this technique, you can revise even big big chapters of biology (that too quality revision) in just 15-20 min without leaving a single imp point. Yes it saves that much amount of time!! Thousands of students have used my this techniques and got selection, you will find many on my Instagram stories. (@parthvegan :)

Using this, you will cover whole NCERT and will also not have to waste time reading useless big paragraphs of NCERT. Me and my designer have invested 8-10 hrs in each and every biohacks, trying to make it as best as possible. With these biohacks, you have me in it :)

All the best!

Parth Goyal



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Features of the New Biohack Notes

- 1) 100% NCERT Covered – All the important facts of NCERT are covered. Only theory not important from an exam point of view is omitted.
- 2) PYQs highlighted in **Red**
- 3) DigaQs – These are “pikachu” like cute questions which will pop-up in between making the PDF aesthetic! It contains all important diagrams with their labelling removed.
- 4) Essence of Biohack (Active Recall) – Instead of reading NCERT theory again and again for revision (which is a boring process to be true), asking questions from it is better because it will make us more focused and make the revision process fun and faster!
- 5) More active recall than ever – I have discovered a new trick to make you more attentive than ever. I have seen that people give more attention to things when they notice something “weird” or opposite than “normal”. I can’t tell you about it fully, but yaa I can give a hint, questions are framed in such a way that you will have to think twice before answering and hence no passive reading can take place!
- 6) Short questions so that revision can be fast – like take an example, “_____ no of spiracles are present in cockroach” is converted to “_____ no of spiracles”. It will be obvious to you that this question is about cockroach (because it will be in cockroach biohack) But this small reduction in no of words in each question successively will save a lot of time and will cause bullet-train superfast revision!
- 7) Some relevant out of NCERT Questions are also included
- 8) Mnemonics integrated with answer
- 10) Info compressed so that notes takes less pages to print
- 11) Clean and beautiful design of PDF
- 12) These PDFs are made by myself, a topperwho discovered this technique, so they are the best!

How to Use ?

You can use these notes for **revision (that too in an active recall manner, that's why they are best!)** & also after the first read for **question practice (spaced repetition).**



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• THE LIVING WORLD

- 1) _____ is called the Darwin of 20th century.
- 2) Ernst Mayr was born at _____, Germany/England.
- 3) Ernst Mayr is known for _____
- 4) Increase in _____ and _____ are twin characteristics of growth.
- 5) Growth and reproduction are mutually exclusive in _____
- 6) Living organism grow intrinsically/extrinsically.
- 7) Growth is a defining property of living organism. T/F
- 8) Reproduction is a defining property of living organism. T/F
- 9) In _____, true regeneration is seen.
- 10) Fragmentation is seen in _____.
- 11) In _____, growth is synonymous with reproduction.
- 12) _____, _____ don't reproduce.
- 13) Define Metabolism
- 14) An isolated metabolic reaction outside the body, performed in a test tube is non living. T/F
- 15) Metabolism is a defining feature of living organisms. T/F
- 16) Isolated metabolic reactions are living reactions. T/F
- 17) Isolated metabolic reactions are non living things. T/F
- 18) Cellular organisation is a defining feature. T/F
- 19) Tell all the defining features of living organisms. (3)
- 20) Most obvious and technically complicated feature on living organism is _____ (NEET)
- 21) Photoperiod affects reproduction in animals. T/F
- 22) Only organism which is aware of himself is _____ because it have _____
- 23) Properties of tissues are present in the constituent cells. T/F
- 24) Properties of cellular organelle arise due to -
- 25) Number of species known and described range between _____-_____ million/billion. (NEET)
- 26) Agreed principles and criteria for plants are provided by _____
- 27) Animals are named by _____
- 28) Founder of Taxonomy is _____
- 29) Carolus Linnaeus gave _____ (NEET)



- 30) Biological names are generally in _____ and written in _____
- 31) Specific epithet starts with a small letter. T/F
- 32) Classification is based on some easily observable characters. T/F
- 33) What is a taxa ?
- 34) "Wheat", "Human", "animal", they all are taxa. T/F
- 35) Basis of modern taxonomic studies are (5)
- 36) The process of classification is called _____
- 37) 4 processes which are basic to taxonomy are -
- 38) Earlier classification were on the basis of _____
- 39) 'systema' means systematic arrangement of organism. T/F
- 40) Linnaeus title of publication was (NEET)
- 41) Systematics take into account evolutionary relationships between the organisms. T/F



• TAXONOMIC CATEGORIES

- 42) The taxonomic groups are distinct biological entities and not merely morphological aggregates. T/F
- 43) Name the taxonomic categories from highest to lowest.
- 44) Solanum genus include which three species?
- 45) Panthera include which 3 species?
- 46) Potato scientific name
- 47) Brinjal scientific name
- 48) Makoi scientific name
- 49) Felis genus include?
- 50) Families are characterized on the basis of _____ and _____ features of plant species.
- 51) Family Solanaceae contains genera (3)
- 52) Family of leopard is
- 53) Felidae contains genus _____ and _____
- 54) Suffix of family is _____ in plants and _____ in animals.
- 55) Suffix of order is _____ in plants.
- 56) Order polymoniales contains family _____ and _____ based on _____ characters.
- 57) Carnivora is a order. T/F
- 58) It include family _____ and _____
- 59) Mammalia contains order _____ and _____



60) As we go lower in taxa, number of common characteristics increase. T/F

61) Family and order of housefly? (NEET)

62) Genus, family and order of wheat?

63) Family and order of humans? (NEET)

64) Family and order of mango? (NEET)



• TAXONOMIC AIDS

65) Definition of Herbarium?

66) _____ is serve as a quick referral system in taxonomic studies.

67) Herbarium sheet carry label providing info about 7 things. Name them.

68) What are botanical gardens?

69) Each plant label indicate its _____ name and _____

70) Kew is located in _____

71) Name three famous botanical garden and where they are situated.

72) In museum, insects are preserved after _____, _____ and _____

73) How are larger animals preserved?

74) Museums have collection of skeleton of animals too. T/F (NEET)

75) Zoological parks help us to learn about animal _____ and _____

76) Key is used to identify plant only. T/F

77) Keys are based on _____ generally in a pair called _____

78) Each statement in the key is called a _____

79) Separate taxonomic keys are not required for each taxonomic category. T/F

80) Keys are _____ in nature.

81) _____ contains the actual account of habitat and distribution of plants of a given area.

82) Manuals are useful for –

83) Monographs contain

84) What is Catalogue ?



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ANSWERS



ANSWERS

- 1) Ernst Mayr
- 2) Kempten, Germany
- 3) Give the definition of biological species
- 4) Mass and number
- 5) Higher plants and animals
- 6) Intrinsically
- 7) False
- 8) False
- 9) Planaria
- 10) Fungi, filamentous algae, protonema o mosses
- 11) Unicellular organism
- 12) Mules and sterile workers bees
- 13) Sum total of all chemical reactions occurring in our body
- 14) False
- 15) True
- 16) True
- 17) True
- 18) True
- 19) Metabolism, consciousness, cellular organization
- 20) Consciousness
- 21) True
- 22) Human, self-consciousness
- 23) False
- 24) interactions among the molecular components comprising the organelle
- 25) 1.7-1.8 million
- 26) ICBN
- 27) ICZN
- 28) Carolus Linnaeus

- 29) Binomial Nomenclature
- 30) Latin, italics
- 31) T
- 32) True (NCERT line P.g. No - 7)
- 33) Convenient categories used to study organisms
- 34) T
- 35) External structure, internal structure, cell structure, developmental process and ecological information of organism
- 36) taxonomy
- 37) Characterisation, Identification, Classification and Nomenclature (CICN)
- 38) Uses of organism
- 39) T
- 40) Systema Naturae
- 41) T

• TAXONOMIC CATEGORIES

- 42) T
- 43) Kingdom, Phylum, Class, Order, Family, Genus, Species
(Mnemonic - Kind People Can Often Find Great Sex)
- 44) Nigrum, melongena, tuberosum
- 45) Leo, tigris, pardus
- 46) Solanum tuberosum
- 47) Solanum melongena
- 48) Solanum nigrum
- 49) Cats
- 50) Vegetative and reproductive
- 51) Solanum, Petunia, Datura
- 52) Felidae



53) *Panthera* and *Felis*

54) -aceae, -dae

55) -ales

56) *Convolvulaceae*, *Solanaceae*, floral

57) T

58) *Felidae* and *canidae*

59) *Primata* and *Carnivora*

60) T

61)	Common Name	Biological Name	Genus	Family	Order	Class	Phylum / Division
62)							
63)	Man	<i>Homo sapiens</i>	<i>Homo</i>	Hominidae	Primata	Mammalia	Chordata
64)	Housefly	<i>Musca domestica</i>	<i>Musca</i>	Muscidae	Diptera	Insecta	Arthropoda
	Mango	<i>Mangifera indica</i>	<i>Mangifera</i>	Anacardiaceae	Sapindales	Dicotyledonae	Angiospermae
	Wheat	<i>Triticum aestivum</i>	<i>Triticum</i>	Poaceae	Poales	Monocotyledonae	Angiospermae

• TAXONOMIC AIDS

65) Herbarium is a store house of collected plant specimens that are dried, pressed and preserved on sheets.

66) Herbarium

67) date and place of collection, English, local and botanical names, family, collector's name

68) They have collection of living plants for reference

69) Scientific, family

70) England

71) Kew (England), Indian Botanical Garden, Howrah (India) and National Botanical Research Institute, Lucknow (India)

72) Collecting, killing and pinning

73) Stuffing

74) T

75) Food habits and behaviour

76) F

77) Contrasting characters, couplet

78) Lead

79) F

80) Analytical

81) Flora

82) Book having listing and description of plant in a particular area

83) Info about any one taxon

84) Alphabetical arrangement of species



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*SCAN AND DONATE US SO THAT WE
CAN CREATE MORE SUCH QUALITY
CONTENT FOR YOU!*

JUST ₹10-20 WILL BE APPRECIABLE! :)

*AFTER THE ANNOUNCEMENT OF
GETTING NEW QUALITY BIOHACKS.....*



MARKS HI MARKS HOGA...!!